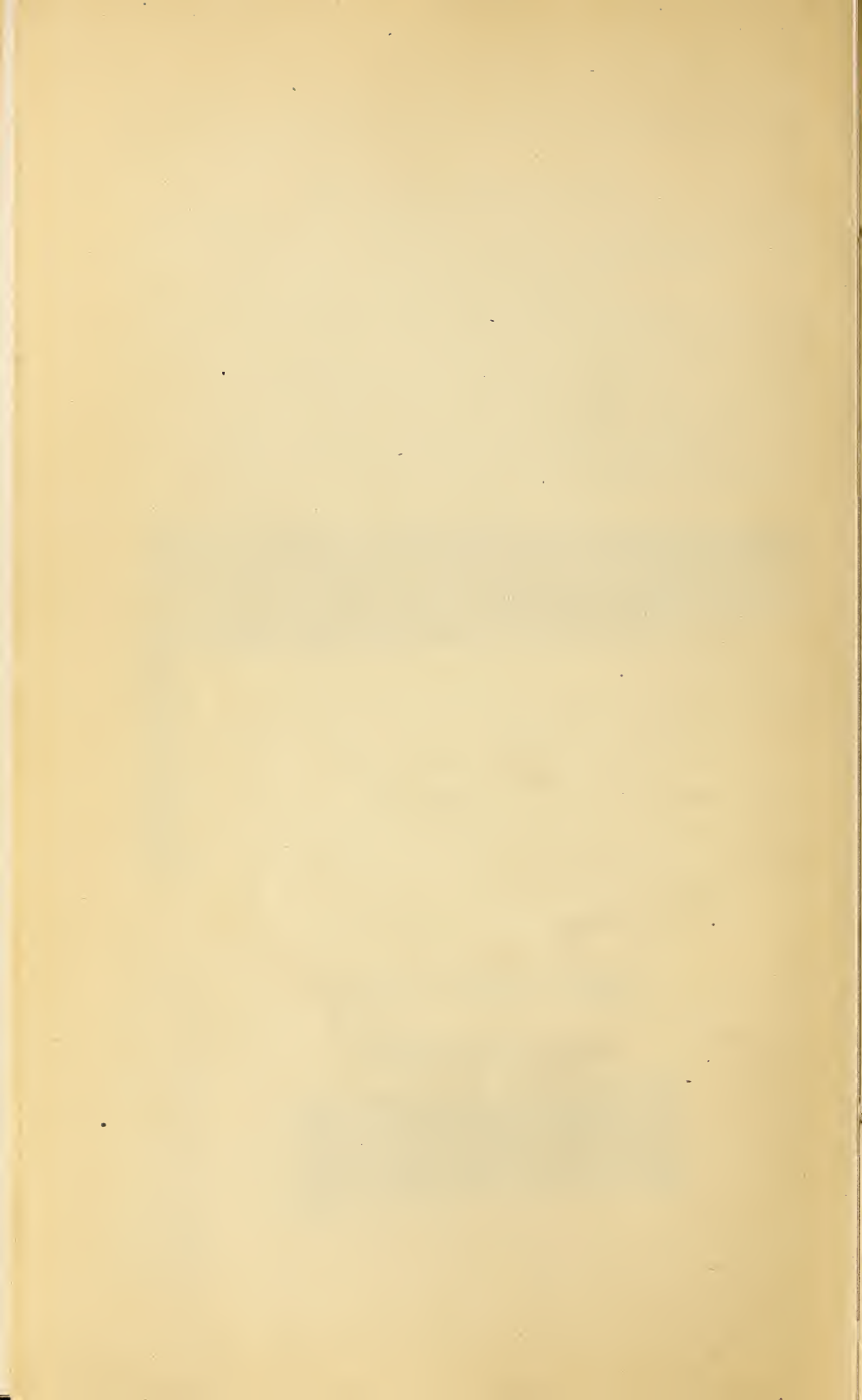


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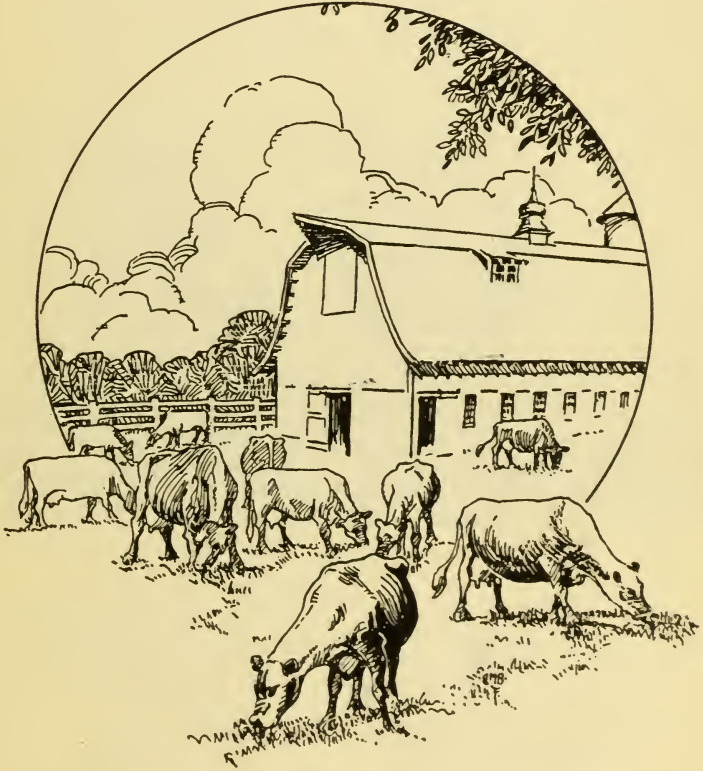
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# IMPROVING DAIRY HERDS



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# IMPROVING DAIRY HERDS

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## What Constitutes Dairy-Herd Improvement?

The ultimate aim of dairy-herd improvement is to develop herds to higher production with a corresponding increase in the economy of that production. Development of dairy herds on the basis of appearance alone with little or no regard for production must sooner or later fail. Consideration may well be given to both production and appearance, with the emphasis on production, but the final test should be the economy of production.

The fundamental principles of dairy-herd improvement are culling, feeding, and breeding. Figure 1 shows a grade herd that has been improved rapidly by putting these principles into practice. In 1917



FIG. 1.—A dairy herd can be built up rapidly by close culling, proper feeding, and good breeding

the average production per cow in this herd was only 3,311 pounds of milk and 155 pounds of butterfat. In 1930 the average had been raised to 6,105 pounds of milk and 282 pounds of butterfat per cow.

## Need for Herd Improvement

It is generally estimated that one-third of the dairy cows in the United States are kept at a loss, that about one-third return little or no profit, and that only about one-third yield large profits.

The average dairy cow in this country produces approximately 4,600 pounds of milk containing 180 pounds of butterfat. This is not the most economical production. Moreover, thousands of herds of dairy cows are below this.

Studies made from the records of over 194,859 individual cows in dairy-herd-improvement associations show that cows producing 4,000 pounds of milk per year returned on the average only \$60 over cost of feed. Cows yielding 7,000 pounds, which was approximately

the average production of those in associations, returned \$112.89 after the feed had been paid for. This is a gain of \$52 in income over feed cost, and was obtained at an additional feed cost of only \$15.

In these studies such costs as labor, interest charges, and depreciation are not considered. On the other hand no credit is given for the calf or the manure.

### Feed and Production Records Necessary for Herd Improvement

Marked improvement in the herd is difficult to obtain unless records are kept for accurately determining production of individual cows, their feed consumption, and economy of production. These may consist of private records, records obtained by cow-testing circles or clubs, or records kept by dairy-herd-improvement associations. At the present time by far the best method of keeping records is that of the dairy-herd-improvement association.



FIG. 2.—A high-producing dairy herd yields large profits

A dairy-herd-improvement association is an organization of about 26 dairy farmers who cooperatively employ a trained tester to test their cows for economical production of milk and butterfat. The tester spends one day a month on each farm and while there gets a complete record of the amount of milk and butterfat produced by each cow in the herd, the amount and kind of feed consumed, cost of feed, gross income, and income over cost of feed. Using these records as a guide, the farmer and the tester figure out better methods of feeding, care, and management. All cows that do not respond profitably to intelligent feeding are eliminated, and careful attention is given to problems of breeding.<sup>1</sup>

### Cull the Low Producers

Culling is necessary in improving a herd of dairy cows. Almost every dairy herd has unprofitable producers. The sooner these ani-

<sup>1</sup>Additional information on this subject is given in MCDOWELL, J. C. COW-TESTING ASSOCIATIONS, AND STORIES THE RECORDS TELL. U. S. Dept. Agr. Farmers' Bul. 1446, 22 p., illus. 1925.

imals are weeded out the easier it is for the other improvement factors to show their effect.

In many dairy-herd-improvement association herds during the first year of testing it has been possible to locate several unprofitable cows. By selling these animals to the butcher the owner has been able to derive fully as much income over feed cost from the remainder of the herd with fewer animals to feed and care for. This is the first step in herd improvement.

A cow tester reported that by selling two boarder cows out of a herd of eight and by using better feeding methods one member of a dairy-herd-improvement association reduced the feed cost of producing butterfat from 46 cents to 25 cents a pound.

Another cow tester reported that one member had culled his herd to such an extent that four cows were now giving him as large cream checks as five cows formerly did. With the money obtained from the sale of the low-producing cows he was able to remodel the interior of his barn and to install improved stanchions.



FIG. 3.—Dairy-herd-improvement methods should be applied by every dairyman

### Feed Cows According to Production

Proper feeding of dairy cows requires careful study. It has, however, certain readily understood fundamentals, which are based on the daily records of production of each cow in the herd. Feeding can be and often is so limited that cows of good inherent producing ability are unable to produce satisfactorily. The other extreme is often reached when dairymen feed an expensive ration so liberally that even with high production the cows can not show a profit. Dairy-herd-improvement-association records show instances of these types of feeding.

In a case that recently came to light a dairyman with 19 cows of high production had a yearly income over feed cost of only \$15.99 a cow. The average feed cost per cow was \$214.69. The hay that was fed had been purchased at a high price. The concentrates had also been purchased. The cows in this herd were returning only \$1.07 for every dollar expended for feed.

In the same association another member, who was receiving the same price for his product, had a herd of equal producing ability. This member, however, fed more home-grown feeds. His feed costs were \$100.43 a cow, and the returns over feed cost were \$112. By

giving greater attention to feed costs this dairyman received \$2.12 for every dollar expended for feed as compared with the \$1.07 received by the first dairyman.<sup>2</sup>

### Breed Cows to a Good Proved Sire

It has been said that by close culling production in many herds can be increased 25 per cent and that by proper feeding it can be increased another 25 per cent. Improvement through breeding offers opportunities for even greater increases in production.

The sire is the most important individual in the herd. It has been stated that a good sire is half the herd and a poor sire is all the herd. A measure of the effect of the bull on the production of his offspring is of the greatest importance. Dairy-herd-improvement association records accomplish this. If the herd bull is able to sire daughters that are higher producers of milk and butterfat than their dams he is improving the herd. If he is unable to sire such daughters the herd will decline, even when careful selection and proper feeding are practiced.<sup>3</sup>



FIG. 4.—A well-bred and well-cared-for dairy herd is pleasing to the eye as well as to the pocketbook

### Summary

The average dairy cow in this country to-day is not the most economical producer of milk and butterfat. Records of large numbers of cows in dairy-herd-improvement associations show that on the average high-producing cows are more economical. In order to effect dairy-herd improvement, records furnishing information for culling, feeding, and breeding are necessary. The cooperative dairy-herd-improvement association has proved to be the best method for furnishing such records and has been instrumental in building up the herds of the members to a much higher level of production and economy than that obtained by the average dairy herd.

<sup>2</sup> Feeding details are given in RABILD, H., DAVIS, H. P., and BRAINERD, W. K. THE FEEDING OF DAIRY COWS. U. S. Dept. Agr. Farmers' Bul. 743, 27 p., illus. 1927. [Revised.]

<sup>3</sup> The value of the sires whose transmitting abilities have been proved by dairy-herd-improvement-association records is shown in McDOWELL, J. C., and WINTERMEYER, W. E. PROVED DAIRY SIRES. U. S. Dept. Agr. Circ. 3, 8 p. 1927.





